

REMARKS

In the Office Action dated May 12, 2004, claims 11-31 are pending and have been rejected. Accordingly, claims 11-31 are at issue.

35 U.S.C. § 102

Claims 11-21, 25-29 and 31 have been rejected under 35 USC § 102(e) as being anticipated by US Patent 5,862,391 (hereafter "Salas"). Applicants respectfully traverse this rejection.

Claim 11 of the present invention is directed toward a network communication system. Among other limitations, Claim 11 requires "...a slave device being exclusively responsive to the request message of the master device..." This means that the slave device does not respond to messages from devices other than the master device in the communication system. Salas does not disclose this limitation. Instead, all of the devices in Salas respond to messages from several devices. Specifically, Salas discloses a gateway device that interfaces between a plurality of Modbus serial networks and a TCP/IP Ethernet network. As such, the gateway device responds to many masters trying to access many devices on the serial Modbus networks. Salas does disclose that the gateway must be sure that the messages come from the power management system and not other non-related devices, using authentication and security (column 6, lines 13-17). The implication here is that the device will respond to non-related devices with authentication or security error messages and that the device will respond to more than one device in the power management system. This is different from being exclusively responsive to a master device as the present claim requires.

Furthermore, Salas does not disclose the "optimal protocol" limitation of claim 11. Salas discloses a TCP/IP network that embeds the serial package in a wrapper (see Fig 64). The diagram of a message using this protocol is not optimal. Specifically, the Salas protocol includes 10 bytes of "0xAA" plus a five byte header in addition to the serial packet (column 47 lines 15-

30). This inclusion of 10 extra bytes for each message is the opposite of the "optimal" requirement of the present claim.

In view of the above, Applicants respectfully submit claim 11 is not anticipated by Salas.

Claims 12-21 depend upon claim 11 and include each and every limitation of claim 11. Because Salas does not anticipate claim 11, Applicants respectfully submit it can not anticipate claims 12-21. Applicants therefore request that the rejection of claims 11-21 under 35 USC § 102 be removed.

Claims 25-29 and 31 are also rejected as being anticipated under 35 USC § 102 by Salas. However, Applicants respectfully point out that each of these claims are dependent upon claim 24, which is not rejected under 35 USC § 102. Because each of these claims contain each and every limitation of claim 24, it is not possible for these claims to be anticipated by Salas.

Claims 11-21, 25-29 and 31 have been also rejected under 35 USC § 102(e) as being anticipated by US Patent 6,282,454 (hereafter "Papadopoulos"). Applicants respectfully traverse this rejection.

In the January 31, 2004 Office Action, the Examiner rejected the present application under 35 USC § 102(e) as being anticipated by US Patent 6,321,272. Applicants overcame this rejection with two 37 CFR 1.131 Declarations submitted with Applicants' prior response. The application resulting in US Patent 6,321,272 was concurrently filed with the application that resulted in Patent 6,282,454. Moreover, each of these applications incorporated the other by reference. For these reasons, Applicants contend that the two 37 CFR 1.131 Declarations filed on March 29, 2004 also apply to the '454 reference. Therefore, the Papadopoulos reference is not available for use against claims 11-21, 25-29, and 31.

Furthermore, claims 25-29 and 31 are also rejected as being anticipated under 35 USC § 102 by Papadopoulos. However, Applicants respectfully point out that each of these claims are dependant upon claim 24, which is not rejected under 35 USC § 102. Because each of these

claims contain each and every limitation of claim 24, it is not possible for these claims to be anticipated by Papadopoulos.

35 U.S.C § 103(a)

Claims 22-23 and 30 have been rejected under 35 USC § 103(a) as being unpatentable over the Salas patent in view of U.S. Patent No. 5,757,924 to Friedman. Applicants respectfully traverse this rejection.

Claims 22 and 23 depend upon claim 11 and include each and every limitation of claim 11. Claim 30 depends on claim 24 and includes each of its limitations. As set forth above, Applicants respectfully submit claims 11 and 24 are patentable over Salas. Moreover, neither claim 11 or 24 have been rejected based on Friedman (either alone or combined with Salas or any other reference). Accordingly, Applicants respectfully submit claims 22-23 and 30 are also patentable over Salas in view of Friedman..

Claim 24, the second independent claim in this application, is rejected under 35 USC 103(a) as being unpatentable over Salas in view of U.S. Patent No. 5,375,070 to Hershey. Applicants respectfully traverse this rejection.

Claim 24 is directed towards an Ethernet module. Among other limitations, claim 24 requires "an optimal communication stack that executes on the control processing unit, the optimal communication stack being capable of processing a TCP protocol, an IP protocol and application layer protocol using a state machine, the processing further including building and parsing a communication message dependent upon a predetermined index of the message." First of all, Salas does not disclose optimizing a MODBUS/TCP/IP stack. Salas does describe at column 6, lines 5-45 a rather inefficient protocol but does not describe the processing of the stack and how the processing is optimized. See also the discussion above concerning claim 11.

Second, the Examiner admits that Salas does not describe the use of a state machine as is required by claim 24, and looks to Hershey, column 18 lines 37-48 for the state machine.

Hershey discusses the use of Finite State Machines to process "event vectors". This is used in a network monitor to watch network traffic for a select pattern to occur. In column 18, lines 28 and 29, Hershey specifically provides that no data is to be collected off of the network. This teaches away from the requirement of claim 24, where a communication message must be collected so that the message can be parsed and a response built.

Finally, there is no motivation to combine Hershey's network monitor with Salas' gateway even if all of the elements could be found in these references.

Double Patenting

Claims 11-21, 24-29, and 31 have been rejected under the doctrine of obvious-type double patenting over claims 1-18 of the Papadopoulos patent. Papadopoulos is owned by the same assignee as the present application and has one common inventor. Applicants submit herewith a Terminal Disclaimer to overcome this rejection.

Conclusion

Accordingly, Applicants submit that, in light of the above remarks, and the Terminal Disclaimer submitted herewith, claims 11-31 are in condition for allowance. Applicants respectfully request the Examiner to withdraw the rejections and to allow the claims to issue. The commissioner is authorized to charge deposit account 23-0280 for any fees associated herein. Applicants further invite the Examiner to contact the undersigned representative at the telephone number below to discuss any matters pertaining to the present Application.

Respectfully submitted,

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